



CLAIM SET AS AMENDED

1. (Currently Amended) A beam current limiting circuit for a video projector comprising:

AI
a cathode current detector for tapping into and detecting
a cathode current ~~of~~ being input from a separate source to
each of a plurality of CRTs used with a video projector;

wherein said cathode current detector is used to adjust a
current in a black image (cutoff current) on the CRT and limit
a beam current flowing into the CRT.

RECEIVED

NOV 10 2003

Technology Center 2600

2. (Currently Amended) ~~The beam current limiting circuit as claimed in claim 1~~ A beam current limiting circuit for a video projector comprising:

a cathode current detector for detecting a cathode current of each of a plurality of CRTs used with a video projector;

wherein said cathode current detector is used to adjust a current in a black image (cutoff current) on the CRT and limit a beam current flowing into the CRT; and

wherein said cathode current detector comprises a first resistor being inserted to a cathode current passage of each CRT for detecting a black screen current (cutoff current) and a second resistor inserted to the cathode current passage of each CRT for detecting the beam current flowing into the CRT, the first and second resistors being connected in series.

3. (Original) The beam current limiting circuit as claimed in claim 1, further comprising an anode current detector for detecting an anode current of each the CRT, wherein said anode current detector is used to limit the beam current flowing into the CRT.

4. (Original) The beam current limiting circuit as claimed in claim 1 wherein when the motion of an image displayed on the CRT is small, said cathode current detector limits the cathode current more than when the motion of an image displayed is large.

12 5. (Currently Amended) ~~The beam current limiting circuit as claimed in claim 1, further comprising~~ A beam current limiting circuit for a video projector comprising:

a cathode current detector for detecting a cathode current of each of a plurality of CRTs used with a video projector;

wherein said cathode current detector is used to adjust a current in a black image (cutoff current) on the CRT and limit a beam current flowing into the CRT; and

an anode current change detector for detecting a change in anode current with a time, wherein when said anode current

AB
CMT
change detector determines that a change in current is small over a predetermined period of time, said cathode current detector limits the cathode current more.

6. (Original) The beam current limiting circuit as claimed in claim 5 wherein said anode current change detector includes an analog/digital converter that inputs an anode current detection signal, and a microcomputer connected to said analog/digital converter.

7. (Original) The beam current limiting circuit as claimed in claim 1 wherein said cathode current detector limits the beam current so that a difference between a maximum value and a minimum value of the cathode currents of the CRTs becomes within a predetermined value.

8. (Original) The beam current limiting circuit as claimed in claim 1 wherein a beam current limiting range is corrected based on the peak value of the CRT beam current.

9. (New) A beam current limiting circuit for a video projector comprising:

13
a circuit loop for controlling the gain and phase for a

beam current being input for each of a plurality of CRTs used with a video projector; and

wherein said circuit loop including a circuit subloop that is activated to limit the beam current being input in response to a current limit threshold being satisfied.

10. (New) The circuit of claim 9, wherein said circuit loop and said circuit subloop both including a current detector to detect when said current limit threshold is satisfied and activate said circuit subloop to adjust the range of the beam current being input.